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Google or not to Google (this is the question)

Da Google alle banche dati citazionali

Le ricerche bibliografiche per ingegneri meccanici e navali

Google

Bing

DuckDuckGo

Trieste, 8 marzo 2018

Marco Chiandoni

Motori di ricerca (Google, Bing, DuckDuckGo)

Pianeta Google (Scholar, Patents, Books)

Scholar Google vs Academic Microsoft

Altri motori di ricerca (https://www.wolframalpha.com/)

Banche dati citazionali Scopus e Web of Science

Indici citazionali (IF, H-index, Plumx, …)

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Parole chiave suggerite

Ingegneri meccanici

multi-state/multi-load machine monitoring

residual useful life (RUL) estimation for bearing

hydropower system dynamics modelling

indicator for ride quality

Ingegneri navali

sleep comfort on board ship

sleep quality indicators

smell sensors for comfort analysis

Google Bing DuckDuckGo

Cosa sono i motori di ricerca

Software che ricerca nel web i termini forniti dall'utente.

Sono strumenti "for profit"

La ricerca è effettuata nei db proprietari.

Ogni motore di ricerca costruisce elenchi di pagine web attraverso i propri "spider": questi programmi non fanno altro che passare da una pagina all'altra attraverso i link. Più link portano ad un sito, più questo è visibile.

Gli spider visitano continuamente il web (Es.: sito di un quotidiano)

Il business

Profilazione dell'utente sulla base di:

- indirizzo IP origine della ricerca
- localizzazione tramite gps (cellulare)
- termini di ricerca inseriti
- preferenze di locali, luoghi...

Ne derivano pubblicità mirate, sui siti web consultati, mail promozionali …
https://goo.gl/images/763sWY

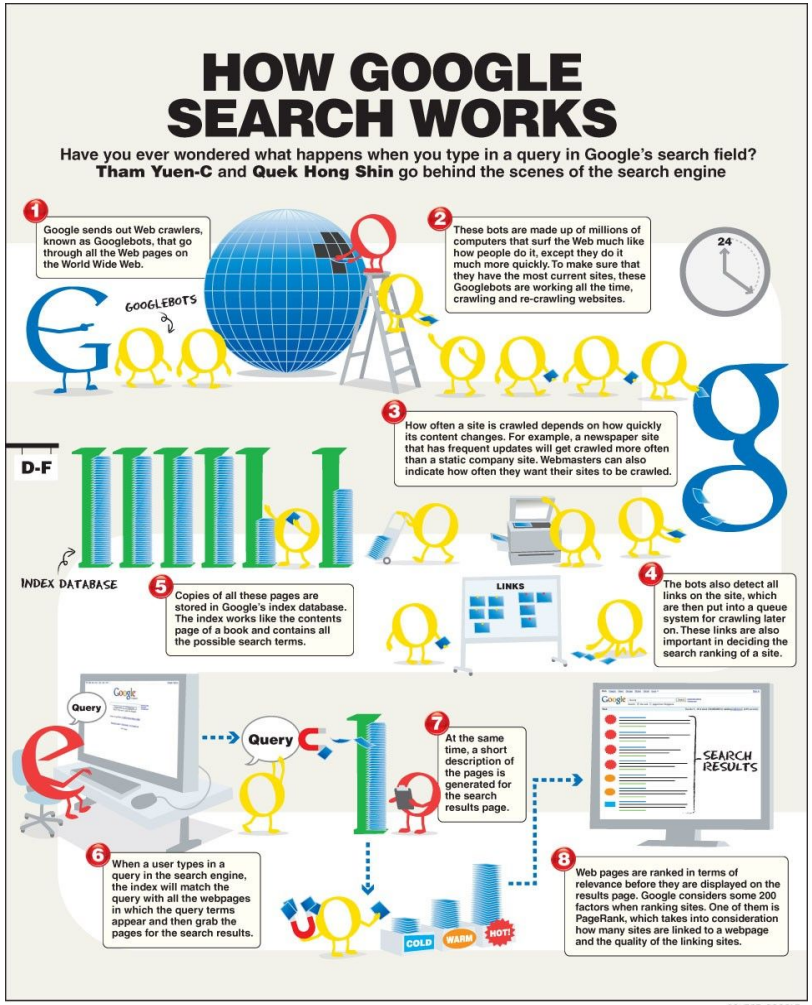
Ad ogni modo il web "visibile" è circa il 4% del totale… (Dark e deep web 96%)

Fitness tracking app Strava gives away location of secret US army bases

https://www.theguardian.com/world/2018/jan/28/fitness-tracking-app-gives-away-location-of-secret-us-army-bases

HOW GOOGLE SEARCH WORKS

Have you ever wondered what happens when you type in a query in Google's search field? **Tham Yuen-C** and **Quek Hong Shin** go behind the scenes of the search engine



SOURCE: GOOGLE

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Pianeta Google

Google Scholar

Google books

Google Trends

Google public data explorer labs

Google Patents

Ricerche mirate in Google

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- utile modificare impostazioni di ricerca, cambiando la lingua di ricerca

- interessante cambiare il numero di risultati visualizzabile in prima battuta

- "residual useful life estimation" bearing (prova con o senza virgolette)

- inserendo parole come “Technical publication”, “technical review”, “dissertation”

- indicando il tipo di file, oppure uno specifico sito, o dominio .edu, .gov, .mil., site:citeseer.ist.psu.edu

Altri criteri: “-” per escludere una parola es.: cane -gatto e differenza con cane gatto

https://support.google.com/websearch/?hl=en#topic=3036132

Google image search

Posso filtrare le immagini per tipo, dimensione, data, diritti di utilizzo...

Google books

Raffinamento per tipo di documento, libro o rivista

Tipo di visualizzazione: anteprima limitata (©), visualizzazione completa

Data

ricerca per autore, isbn, issn, editore ...

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Google scholar - alerts

Ricerca di articoli e brevetti e giurisprudenza

Ricerca avanzata

Alert

Contenuto: “Google Scholar includes journal and conference papers, theses and dissertations, academic books, pre-prints, abstracts, technical reports and other scholarly literature from all broad areas of research. You'll find works from a wide variety of academic publishers, professional societies and university repositories, as well as scholarly articles available anywhere across the web. Google Scholar also includes court opinions and patents.”

Aggiornamento: “We normally add new papers several times a week. However, updates to existing records take 6-9 months to a year or longer, because in order to update our records, we need to first recrawl them from the source website. For many larger websites, the speed at which we can update their records is limited by the crawl rate that they allow.”

Microsoft Academic

MA is a semantic search engine, not a keyword-based one.

Traditional search engines rely mostly on keyword matching. Usually, they match the keywords you type in the search field with words found in the indexed content. The accuracy of the search results depends on the quality of the keywords you type, which puts the responsibility of a successful search on the user.

MA is different because it employs natural language processing to understand and remember the knowledge conveyed in each document. MA then applies a technique known as semantic inference to recognize the user's intent and to proactively deliver results relevant to the user's intention.

As a result, MA can process complex queries and can provide rich and knowledgeable answers. (https://academic.microsoft.com/#/faq - Ultima visita 14 febbraio 2018 - ore 13.05)

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Significato delle icone in MA

What do the icons in query suggestions mean?

When an icon appears in the query suggestions, this means MA has identified the words you typed as an entity. Entities are main concepts around which we organize the entire data.

MA operates around 7 main types of entities, each marked by an icon as explained below:

Affiliation – Author affiliation is the institution the author was affiliated with at the time of publishing the paper

Author – Individual author of a publication

Conference series – Name of academic conference

Field of study – Research area, as identified by publisher keywords and MA algorithms

Journal – Name of scholarly journal

Title – Publication title

Year – Year of publication

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Scopus®

Aggiornato quotidianamente

Indicizza tutti metadati così come forniti dagli editori

Banca dati scelta per la valutazione della ricerca e a fini di valutazione da parte di

Times Higher Education (THE)

QS World University Rankings

MacLean’s

US News

World Report

Selezione delle fonti

[...] Scopus Content Selection and Advisory Board (CSAB), an international group of scientists, researchers and librarians who represent the major scientific disciplines

The CSAB is comprised of 17 Subject Chairs, each representing a specific subject field. The Board works with the Scopus team to understand how Scopus is used, what content is relevant for users and what enhancements should be made [...]

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Cosa trovo in Scopus

[...] Serial publications that have an ISSN (International Standard Serial Number) such as journals, book series and some conference series

Non-serial publications that have an ISBN (International Standard Book Number) like one-off book publications or one-off conferences. [...]

Fonte: https://www.elsevier.com/solutions/scopus/content

(ultima verifica 6/2/2018 ore 12.11)

Analisi quantitativa record presenti in Scopus

più di 69 milioni di articoli (item), il più antico risale al 1788

1,4 miliardi di citazioni bibliografiche a partire dal 1970

22800 riviste

150 mila libri

5 mila editori

12 mila autori*

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Journal selection criteria

[...] To be considered for review, all journal titles should meet all of these minimum criteria:

Peer-reviewed* content and have a publicly available description of the peer review process

*Peer - reviewed : a process by which something proposed (as for research or publication) is evaluated by a group of experts in the appropriate field
(Fonte: https://www.merriam-webster.com/ ultima visita 7/2/2018 11:37)

Be published on a regular basis and have an International Standard Serial Number (ISSN) as registered with the ISSN International Centre

Have relevant and readable content by an international audience, meaning: have references in Roman script and have English language abstracts and titles

Have a publicly available publication ethics and publication malpractice statement

ScienceDirect

Elsevier’s leading platform of peer-reviewed scholarly literature.

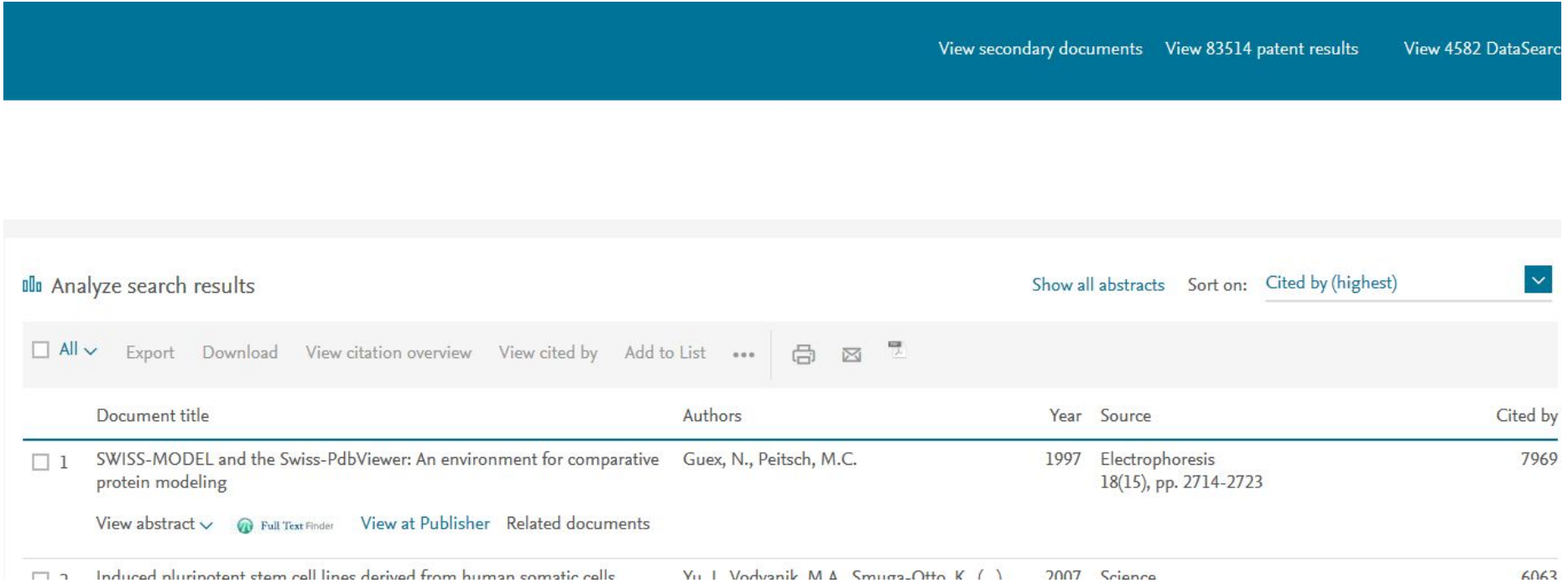
Coverage

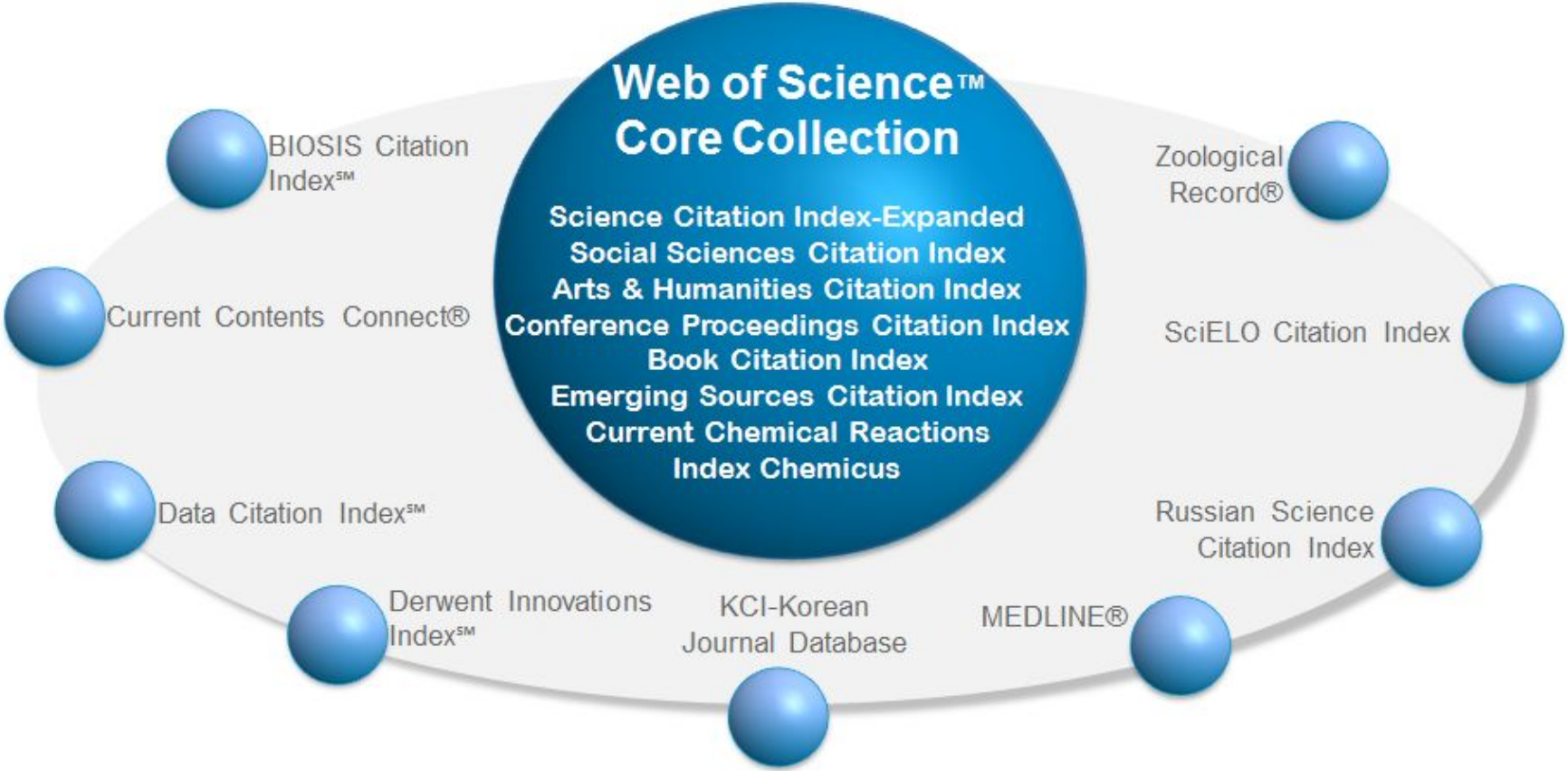
ScienceDirect hosts over 3,800 journals and more than 37,000 books—over 14 million peer-reviewed publications (and growing) from Elsevier, our imprints and our society partners.

(https://www.elsevier.com/solutions/sciencedirect ultima visita 7 febbraio 2018 ore 11.59)

A secondary document is a document that has been extracted from a Scopus document reference list but is not available directly in the Scopus database since it is not indexed by Scopus.

DataSearch = Sharing and using research data can increase in the impact, validity, reproducibility, efficiency, and transparency of scientific research.




Web of Science™
Core Collection
Science Citation Index-Expanded
Social Sciences Citation Index
Arts & Humanities Citation Index
Conference Proceedings Citation Index
Book Citation Index
Emerging Sources Citation Index
Current Chemical Reactions
Index Chemicus
BIOSIS Citation Index℠
Zoological Record®
Current Contents Connect®
SciELO Citation Index
Data Citation Index℠
Russian Science Citation Index
Derwent Innovations Index℠
KCI-Korean Journal Database
MEDLINE®

WEB OF SCIENCE™

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There are currently 12,795 journals fully indexed in the Web of Science™ Core Collection, covering 251 subject categories that span the life sciences, physical sciences, health sciences, social sciences, arts, and humanities.

2,7753 journals within the Web of Science Core Collection are currently classified as Gold Open Access.

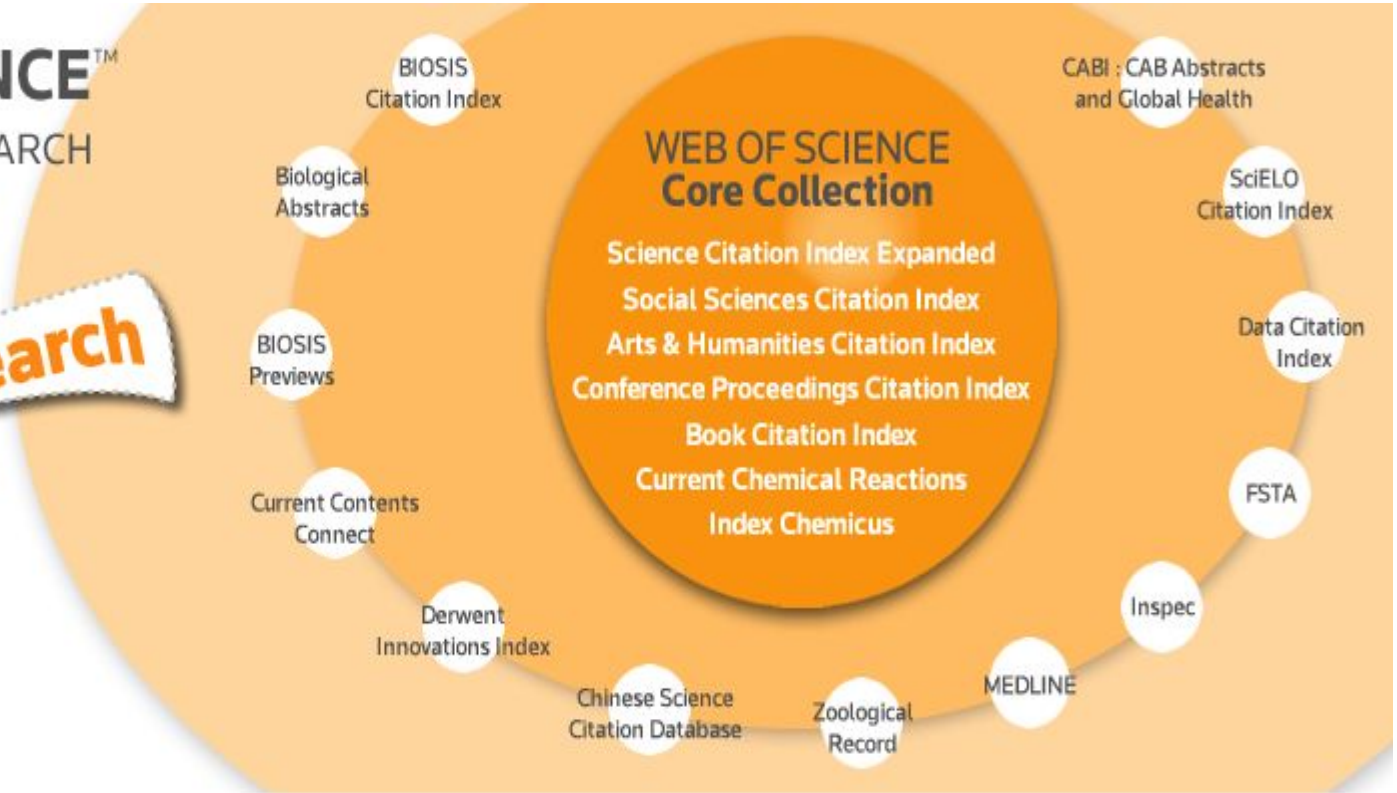
11,149 journals are currently covered in 2015 Journal Citation Report edition.

Web of Science™ Core Collection indexes 71,8904 books, from all major publishers and societies, including a large number of University presses.

170,7385 unique conference titles (totalling 8,599,6946 records) are indexed within the Web of Science™ Core Collection.

WEB OF SCIENCE™

THE EVOLUTION OF SEARCH



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unpaywall

Incluso in Web of Science!

Legal, fair, and sustainable

Millions of research papers are available for free on government and university web servers, legally uploaded by the authors themselves, with the express permission of publishers. Unpaywall automatically harvests these freely shared papers from thousands of legal institutional repositories, preprint servers, and publishers, making them all availabe to you as you read.

Access millions of research articles, instantly

Unpaywall users are able to read over **52%** of research papers for free--without having to pay money, fuss with a VPN, or use pirate sites like Sci-Hub. That's because we're built on a database of millions of open-access articles harvested from thousands of servers worldwide. When you browse to a paywalled paper, we check to see if we have a free copy. If we do, you'll see a green tab...just click, and read.

Built with at Impactstory with support from the National Science Foundation and the Alfred P. Sloan Foundation.

(http://unpaywall.org/- Ultima visita 14 febbraio 2018 - ore 15.47)

Indicatori bibliometrici

Immagine tratta da:
https://blogs.ethz.ch/innovethbib/en/2015/07/09/bibliometrie-neue-methoden-im-zeitalter-von-big-data/
(Ultima visita 14 febbraio 2018, ore 16.11)

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Impact Factor - Journal citation reports

Impact factor

The **impact factor** (**IF**) or **journal impact factor** (**JIF**) of an academic journal is a measure reflecting the yearly average number of citations to recent articles published in that journal. It is frequently used as a proxy for the relative importance of a journal within its field; journals with higher impact factors are often deemed to be more important than those with lower ones. The impact factor was devised by Eugene Garfield, the founder of the Institute for Scientific Information. Impact factors are calculated yearly starting from 1975 for journals listed in the *Journal Citation Reports*.

(fonte:https://en.wikipedia.org/wiki/Impact_factor - Ultima visita 14 febbraio 2018 ore 12.01)

2017 IF della rivista xy

numero citazioni ricevute nel 2015 e 2016 / numero articoli pubblicati nello stesso periodo

Es.: numero citazione = 74 / numero articoli pubblicati 140

IF = 0,52

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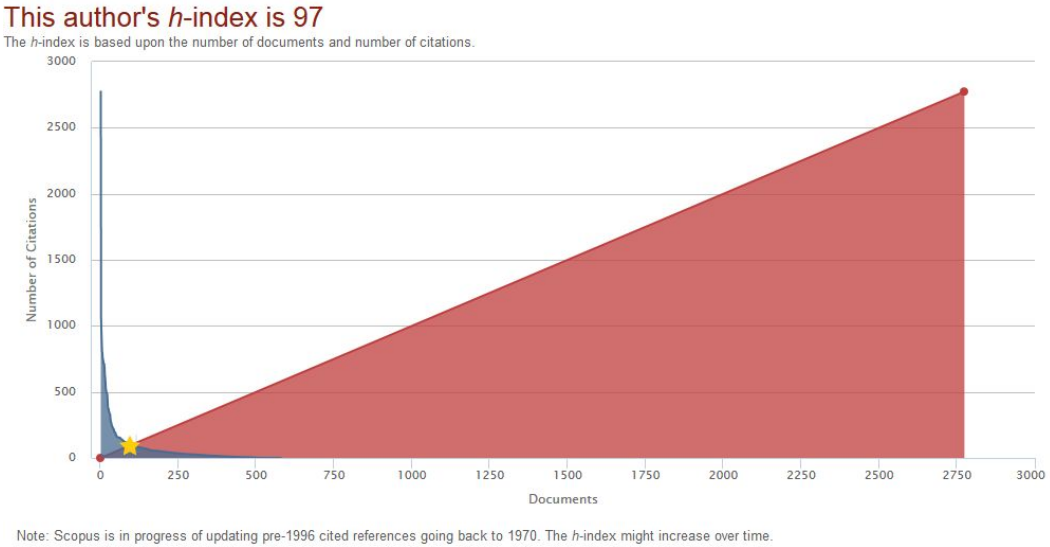
H-index

The *h*-graph is one way of displaying and comparing the productivity and impact of published work of scholars. The *h*-index is the method used which was developed by J. E. Hirsch.

The *h*-index is based on the highest number of papers included that have had at least the same number of citations.



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PlumX Metrics

Usage – A way to signal if anyone is reading the articles or otherwise using the research. Usage is the number one statistic researchers want to know after citations.

Mentions – Measurement of activities such as news articles or blog posts about research. Mentions is a way to tell that people are truly engaging with the research.

Social media -This category includes the tweets, Facebook likes, etc. that reference the research. Social Media can help measure "buzz" and attention. Social media can also be a good measure of how well a particular piece of research has been promoted.

Citations – This is a category that contains both traditional citation indexes such as Scopus, as well as citations that help indicate societal impact such as Clinical or Policy Citations.

Captures – Indicates that someone wants to come back to the work. Captures can be an leading indicator of future citations.

1) Residual useful life estimation: cerca queste parole in “tutti i campi” in Scopus. Quanti documenti di tipo “Review” trovi?
2) Nei risultati ottenuti trova il documento più citato che abbia come soggetto Ingegneria
3) Utilizzando l’operatore booleano che fa in modo che tutti i termini cercati devono essere presenti nei risultati di ricerca, cerca il termine RUL come parola chiave e il termine bearing prevedendo anche la forma plurale in titolo, abstract e parola chiave. Quale tra questi documenti utilizza l’”hidden Markov model” e quale tra i risultati è il più citato. Trovo il DOI di questo documento. Qual è l’affiliationi dei due autori?

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1) Utilizziamo Web of Science e cerchiamo “bearing” come “argomento”

È VERO o FALSO:

- risultano esserci più di 500 mila documenti in ambito ingegneristico
- non trovo nessun documento open access
- l’articolo più citato è quello che mi serve per la ricerca

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2) Cerchiamo nuovamente “bearing” come TITOLO e PHM o RUL come ARGOMENTO

Cerco un articolo pubblicato dalla azienda ALSTOM nella categoria ingegneria meccanica

Di che anno è? chi sono gli autori? Quanti articoli cita?

La prima citazione si riferisce a un periodico o a un libro? È disponibile nel catalogo BiblioEst?